

REMARKS

The Office Action dated May 24, 2004, has been received and carefully noted. The above amendments to the specification and claims, and the following remarks, are submitted as a full and complete response thereto.

The specification and Figure 10 have been amended to correct typographical errors. Claims 1, 4 and 15 have been amended to more particularly point out and distinctly claim the subject matter of the invention. The amendments to claims 1 and 15 were not submitted to overcome a statutory rejection, and these claims are entitled to their full range of equivalents. No new matter has been added. Claims 1-23 are presently pending in the application, and are respectfully submitted for consideration.

The drawings were objected to as allegedly failing to comply with 37 C.F.R. §1.84(p)(5) because the drawings did not include a reference sign mentioned in the description. The Office Action stated that, "signal 114" is not included in Figure 10. Applicant submits an amended Figure 10 indicating signal 114. Thus, the objection is rendered moot. The drawings also were objected to as failing to comply with 37 C.F.R. §1.84(p)(5) because the drawings allegedly include reference signs not mentioned in the description. The Office Action stated that reference signs 216 and 218 of Figure 11 are not included in the specification. Applicant has amended the specification to include reference signs 216 and 218. Thus, the objection is rendered moot.

The specification was objected to because of informalities. Applicant has amended the specification to correct the informalities. Thus, the objection to the specification is rendered moot.

Claims 4-14 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. The Office Action alleged that the limitation "the predetermined communication protocol" did not have sufficient antecedent basis. Applicant has amended claim 4 in accordance with the suggestion by the Office Action to overcome the rejection. Further, claims 5-14 depend from rejected base claim 4 and are not indefinite at least for the same reasons as claim 4. Therefore, applicant respectfully requests that the indefiniteness rejection be withdrawn.

Claims 1, 2, 4-7, 9-11, 15 and 18-23 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over applicant's admitted prior art (AAPA) in view of *Johnson*, "Detailed Guide to Fast Ethernet," Fast Ethernet, Dawn of the New Network, 1996 (*Johnson*). The Office Action took the position that the AAPA disclosed all the features of claims 1, 2, 4-7, 9-11, 15 and 18-23 except for "a selectable communication protocol [that] is controlled by the controller and that the MAC lacks a state data register and is integrably coupled with the PHY." The Office Action then took the position that *Johnson* teaches these features missing from the AAPA. Applicant respectfully submits that the cited references, either alone or in combination, do not disclose or suggest all the features of the presently pending claims.

Claim 1, upon which claims 2-14 depend, recites a communication device. The communication device includes a transceiver (PHY) communicating data packets with a link partner according to a selectable communication protocol. The PHY has a data register therewithin, the data register receiving data representative of the selectable communication protocol. The communication device also includes a media access controller (MAC) adapted for use in a packet-based communication network and operably coupled with the transceiver. The media access controller directly accesses the data register for receiving data representative of the selectable communication protocol.

Claim 15, upon which claims 16-23 depend, recites a communication network. The communication network includes a transceiver (PHY) communicating data packets through a communication network according to a selectable communication protocol. The PHY includes a PHY controller controlling the selectable communication protocol of the communication network. The PHY also includes a state data register storing data representative of a state of the selectable communication protocol. The communication network also includes a media access controller (MAC), operably coupled with a first communication system. The MAC is integrably coupled with the PHY. The MAC directly accesses a state data register corresponding with the state data register in the PHY. The communication network also includes a link partner operably coupled with a second communication system. The link partner cooperates with the PHY controller to select the selectable communication protocol. The communication network also includes a communication channel, operably coupling the PHY with the link partner.

According to the specification, the present invention allows the PHY to communicate data packets with link partner through a communication network according to a selectable communication protocol. These features allow for the reduction of the memory required to store addresses and minimize the probability of an address search missed. It is respectfully submitted that the AAPA and *Johnson*, when viewed alone or when combined, fails to disclose or suggest the elements of the presently pending claims. Therefore, the cited references fail to provide the critical and unobvious advantages described above.

The AAPA describes a configuration in which MAC 100 and PHY 120 communicate link partner capability to each other by way of microprocessor 110. Microprocessor management interface 104 is used to transfer the link partner capability data 112 in link partner capability register 106 between flow control functions 102 of MAC 100 and microprocessor 110. Microprocessor 110 bi-directionally communicates with serial management interface controller 122. Controller 122 places the link capability data via link partner capability register 124. The AAPA, however, does not disclose or suggest the media access controller directly accessing the data register for receiving the data representative of the selectable communication protocol.

Johnson relates to a fast Ethernet. *Johnson* describes a management interface. An adapter card gathers status from a transceiver and controls the transceiver using the management interface of *Johnson*. *Johnson* also describes a dual transceiver configuration that includes an embedded transceiver. *Johnson*, however, does not

disclose or suggest a media access controller integrably coupled with a transceiver, the media access controller directly accessing a state data register corresponding with the state data register in the transceiver.

In contrast, claim 1 recites "a media access controller (MAC) adapted for use in a packet-based communication network and operably coupled with the transceiver, the media access controller directly accessing the data register for receiving data representative of the selectable communication protocol." Further, claim 15 recites "a media access controller operably coupled with a first communications system, the MAC being integrally coupled with the PHY, the MAC directly accessing the state data register corresponding with the state data register in the PHY." Applicant submits that the cited references do not disclose or suggest at least these features of the present invention.

Referring to the AAPA, media access controller 100 is linked to transceiver 120 via microprocessor 110. Media access controller 100 is not directly accessing register 124 according to the AAPA. Referring to *Johnson*, the MAC described does not disclose or suggest directly accessing internal transceiver PHY, or a register therein. Further, the Office Action does not assert that *Johnson* discloses or suggests this feature. Therefore, Applicant submits that the cited references do not disclose or suggest all the features of independent claims 1 and 15. The remaining dependent claims are distinguishable over the cited references for at least the reasons given above. Applicant respectfully requests that the obviousness rejection of claims 1, 2, 4-7, 9-11, 15 and 18-23 be withdrawn.

Claims 3, 8, 12-15, 16 and 17 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the AAPA in view of *Johnson*, further in view of U.S. Patent No. 5,809,026 (*Wong et al.*) The Office Action took the position that the AAPA in view of *Johnson* "may not specifically disclose the PHY and the MAC [being] integrated on a monolithic VLSI component." The Office Action then took the position that *Wong* teaches this feature. Applicant submits that the presently pending claims are not disclosed or suggested by the cited references at least for the reasons given above.

Wong relates to a multi-port network interface. *Wong* describes the multi-port network device coupled to a transmit data bus and configured to transmit data to a physical layer. A receiver is configured to place data, received from the physical layer, on the received data bus for transmission to the network layer by the MAC and PLS circuit. The MAC and PLS circuit of *Wong* is configured to place data on the transmit data bus for transmission to the physical layer by a transmitter. *Wong*, however, does not disclose or suggest the media access controller directly accessing the data register for receiving the data representative of the selectable communication protocol.

In contrast, as stated above, claims 1 and 15 recite a media access controller directly accessing a data register for receiving the data representative of the selectable communication protocol. Claims 3, 8, 12-14, 16 and 17 depend from claims 1 and 15. Because *Wong* does not disclose or suggest those features of claims 1 and 15 missing from the AAPA and *Johnson*, then the cited references do not disclose or suggest all the features of these claims.

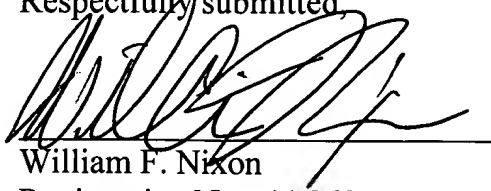
Further, claims 1 and 15 are not rendered obvious by the cited references, either alone or in combination. If an independent claim is non-obvious, then any claim dependent therefrom is also non-obvious. MPEP 2143.03. Thus, for at least these reasons, applicant respectfully submits that the obviousness rejection to claims 3, 8, 12-14, 16 and 17 be withdrawn.

It is further submitted that each of claims 1-23 recite subject matter that is neither disclosed nor suggested in the cited references. It is therefore respectfully requested that all of claims 1-23 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted



William F. Nixon
Registration No. 44,262

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

WFN:cct
Enclosures: Replacement Figure 10